ACTION DESCRIPTION MEMORANDUM
FOR
OPERABLE UNIT 2, SURFACE WATER (WOMAN CREEK BASIN)
INTERIM MEASURE/INTERIM REMEDIAL ACTION
ROCKY FLATS PLANT
GOLDEN, COLORADO

PURPOSE

The purpose of this Action Description Memorandum (ADM) is to provide sufficient information to permit a determination of the level of National Environmental Policy Act (NEPA) documentation required for the Interim Measure/Interim Remedial Action (IM/IRA) plan, in accordance with Department of Energy (DOE) Orders 5440.1D and AL 5440.1B, "Implementation of the National Environmental Policy Act (NEPA)".

BACKGROUND

The Rocky Flats Plant (RFP) is located in northern Jefferson County, Colorado, approximately 16 miles northwest of downtown Denver. Operable Unit 2 (OU 2) is known as the 903 Pad, Mound, and East Trenches.

Remediation of OU 2 is required under the Environmental Restoration Federal Facility Compliance Agreement (known as the Interagency Agreement) between DOE, the Environmental Protection Agency (EPA), and the Colorado Department of Health (CDH). The Interagency Agreement is a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)/Resource Recovery and Conservation Act (RCRA) agreement.

The OU2 Woman Creek Basin IM/IRA was originally combined with the South Walnut Creek Basin IM/IRA as one IM/IRA. However, due to public comment it was decided to split the two basins into two IM/IRAs. The South Walnut Creek IM/IRA has been implemented. The South Walnut Creek IM/IRA plan included an integration of an Environmental Assessment (Final Surface Water Interim Measures/Interim Remedial Action Plan/Environmental Assessment and Decision Document, South Walnut Creek Basin, dated March 8, 1991).

In the fall of 1990, DOE, EPA, and CDH agreed to address the Woman Creek basin IM/IRA separately. The decision to address the two basins separately was based on public comment received. The primary reasons were (1) the desire to tie the treatment to bench scale treatability testing, and (2) inter-basin transfer of radionuclide contaminated waters from the Woman Creek Basin to the South Walnut Creek Basin for discharge (there was concern on the reliability of the selected treatment technology for South Walnut Creek; failure of treatment might have resulted in radionuclide loading of the South Walnut Creek Basin).

DISCUSSION OF THE IM/IRA

The basis of concern for this IM/IRA is the occurrence of several groundwater seeps in the vicinity of the 903 Pad. The primary contamination in the water is radionuclides (plutonium and americium), metals, volatile organic compounds (VOC). The specific locations of concern are Surface Water (SW) stations SW-55 and SW-53 (see Figure 1). SW-55 is a location where the combined flows from SW-50, 51, 52, 57, and 58. The flow from these surface water stations are seasonal and of limited volume (generally less than a total of four gallons per minute).

Bench scale treatability studies were unable to be conducted because of the inability to collect sufficient quantities of water with sufficient activity. Preparation of the IM/IRA plan was begun in June 1991. The IM/IRA plan is intended to be a fully integrated CERCLA/NEPA document.

As part of the IM/IRA plan, several alternatives will be considered. These include a "no action" alternative as well as collection of water at SW-55 and SW-35 with several treatment system alternatives. Collection of water will likely be from small concrete sumps that will be located (minimal to no excavation will be required) at SW-55 and SW-35. The treatment system alternatives are anticipated to include a combination with existing plant operations treatment systems, proposed and existing IM/IRA treatment systems (881 Hillside french drain treatment system as well as the South Walnut Creek system), and a new treatment system.

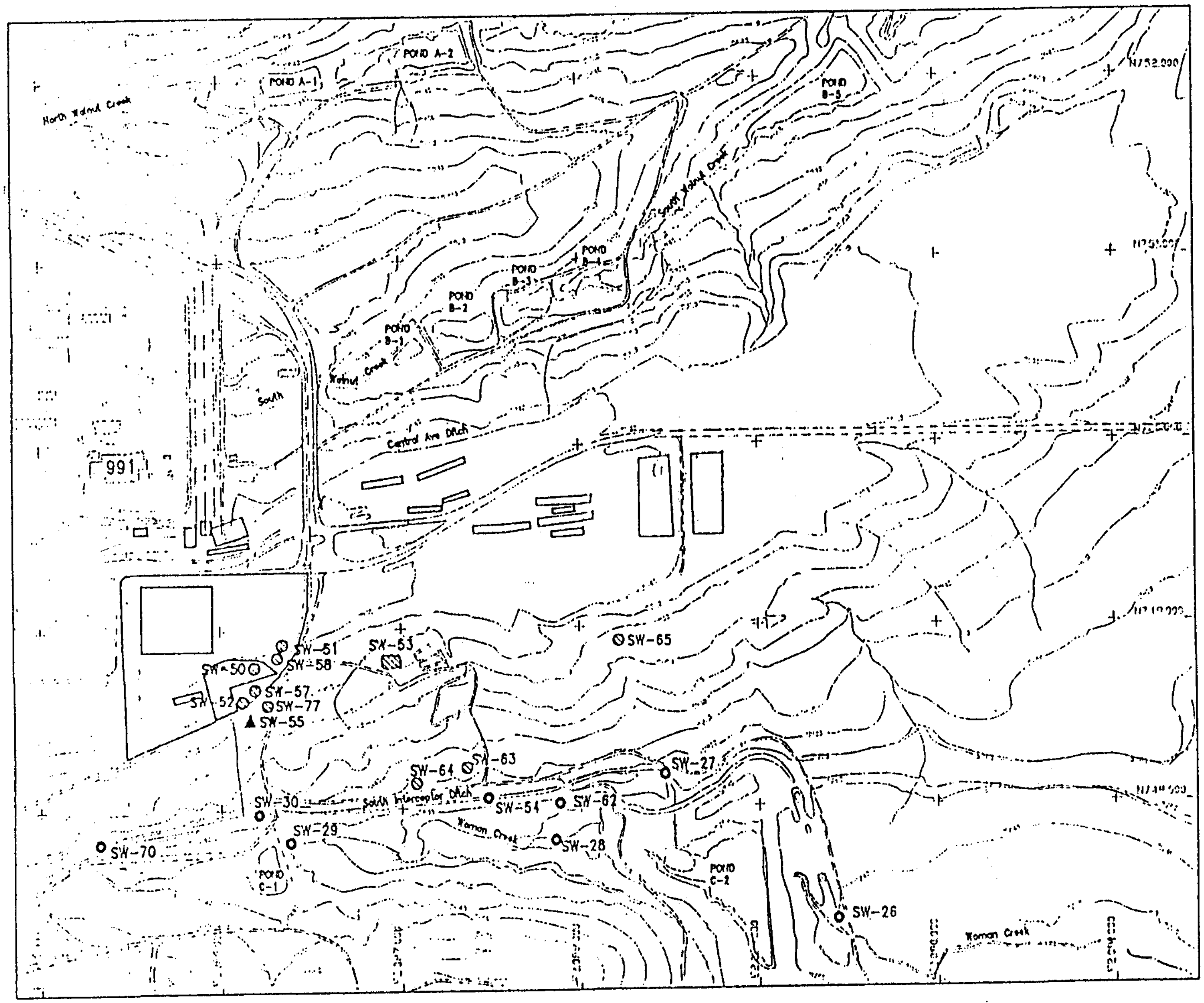
POTENTIAL ISSUES

Because the IM/IRA is located in a wetland area and potentially impacts the wetland, a wetlands assessment will be completed. In addition, the Federal Register notice for pubic comment pursuant to 10 CFR 1022.12 is being planned for the wetlands action at the same time as the public comment for the IM/IRA. An area of wetlands less than one acre (approximately 0.02 acre) is expected to be impacted therefore falling under the Corps of Engineers "Nationwide Permit" (33 CFR 330.5(A)(20)).

Hazardous waste generated by operation of any of the treatment systems would have to be handled, stored, and disposed of in accordance with RFP's RCRA permit and other applicable hazardous materials regulations.

ESTIMATED COSTS

The estimated costs for the alternatives proposed range from $518,000 to $1,225,600.



EXPLANATION

INDIVIDUAL HAZARDOUS SUBSTANCE SITE (IHSS)

SW-29 SURFACE WATER MONITORING STATION IN A SURFACE WATER DRAINAGE

SW-65 SURFACE WATER MONITORING STATION AT A SURFACE SEEP

SW-53 IM/IRA SURFACE WATER MONITORING STATION AT A SURFACE SEEP

SW-55 IM/IRA SURFACE WATER MONITORING STATION AT THE EXIT OF A CULVERT

Scale: 1" = 600'

0' 300' 600'

CONTOUR INTERVAL = 20'

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant
Golden, Colorado

OPERABLE UNIT NO. 2
SURFACE WATER IM/IRA
WOMAN CREEK BASIN

FIGURE

SURFACE WATER
MONITORING STATIONS

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